

Serial No. 10/665,945
Response date April 6, 2006
Reply to Office Action of March 28, 2006

CLAIMS

Claims 1-41 (Cancelled)

42. (Currently Amended) A water treatment cartridge for treating water, said water treatment cartridge capable of sealingly and releasably engaging a water treatment device, said water treatment cartridge comprising:

- (a) a housing, an inlet for introducing water into said water treatment cartridge, an outlet port for egress of treated water from said water treatment cartridge, and a treatment media for treating water, said treatment media being in fluid communication with said inlet and said outlet port;
- (b) a first tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein at least one of said inside surface and said outside surface is a sealing surface; and
- (c) a second tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein at least one of said inside surface and said outside surface is a sealing surface;

wherein said first tube extends from said housing and surrounds said outlet port, and wherein at least a portion of said first tube or said second tube surrounds the other such a gap is formed between said first tube, said second tube, and an outer surface of said housing such that water is prevented from flowing into the gap and said second tube when said water treatment cartridge is not sealingly engaged to the water treatment device.

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43. (Previously Presented) The water treatment of claim 42, wherein at least one said sealing surface of said second tube and at least one said sealing surface of said first tube are coplanar.

44. (Previously Presented) The water treatment cartridge of claim 42, wherein at least a portion of said inside surface of said first tube and at least a portion of said inside surface of said second tube are sealing surfaces.

45. (Previously Presented) The water treatment cartridge of claim 42, wherein said distal end of said first tube extends from said water treatment cartridge housing a greater distance than said distal end of said second tube.

46. (Previously Presented) The water treatment cartridge of claim 42, wherein said first and second tubes are without o-rings.

47. (Previously Presented) The water treatment cartridge of claim 42, wherein the diameter of said inside surface of said second tube is from about 1 cm to about 5 cm, and wherein the diameter of said outside surface of said first tube is from about 0.5 cm to about 3 cm.

48. (Previously Presented) The water treatment cartridge of claim 42, wherein said second tube extends from said first tube, and said first tube extends from said water treatment cartridge housing.

49. (Previously Presented) The water treatment cartridge of claim 42, wherein a portion of said outside surface of said second tube is a cam surface.

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50. (Currently Amended) A water treatment cartridge for treating water, said water treatment cartridge capable of sealing and releasably engaging a water treatment device, said water treatment cartridge comprising:

- (a) a housing, an inlet for introducing water into said water treatment cartridge, an outlet port for egress of treated water from said water treatment cartridge, and a treatment media for treating water, said treatment media being in fluid communication with said inlet and outlet port;
- (b) a first tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein at least one of said inside surface and said outside surface is a sealing surface; and
- (c) a second tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein at least one of said inside surface and said outside surface is a sealing surface;

wherein said first tube extends outwardly from said housing and surrounds said outlet port, and said second tube surrounds at least a portion of said first tube, forming a gap enclosed between said first and second tubes; ~~such that a gap is formed between said first tube and said second tube prior to sealingly engaging the water treatment device, and wherein said distal end of said second tube extends a greater distance than said distal end of said first tube from said housing.~~

wherein said water treatment cartridge is configured such that no water flows into said gap.

51. (Previously Presented) The water treatment cartridge of claim 50, wherein at least a portion of said inside surface of said first tube and at least a portion of said inside surface of said

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second tube are sealing surfaces.

52. (Previously Presented) the water treatment cartridge of claim 50, wherein the most distal said sealing surface of said first tube extends from said water treatment cartridge housing a greater distance than the most distal said sealing surface of said second tube.

53. (Previously Presented) the water treatment cartridge of claim 50, wherein said first and second tubes are without o-rings.

54. (Previously Presented) The water treatment cartridge of claim 50, wherein the diameter of said inside surface of said second tube is from about 1 cm to about 5 cm, and wherein the diameter of said outside surface of said first tube is from about 0.5 cm to about 3 cm.

55. (Previously Presented) The water treatment cartridge of claim 50, wherein a portion of said outside surface of said second tube is a cam surface.

56. (Previously Presented) The water treatment cartridge of claim 50, wherein said treatment media comprises a radial flow carbon block.

57. (Currently Amended) A water treatment cartridge for treating water, said water treatment cartridge capable of sealingly and releasably engaging a water treatment device, water treatment cartridge comprising:

(a) a housing, an inlet for introducing water into said water treatment cartridge, an outlet port for egress of treated water from said water treatment cartridge, and a treatment media for treating water, said treatment media being in fluid communication with said inlet and said outlet port;

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(b) a first tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein at least one of said inside surface and said outside surface is a sealing surface; and

(c) a second tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein at least one of said inside surface and said outside surface is a sealing surface;

wherein said first tube extends from said housing and surrounds said outlet port, wherein at least a portion of said first tube or said second tube surrounds the other, and wherein said sealing surfaces of said first and said second tubes extend from the water treatment cartridge housing about the same distance;

wherein a gap is formed between said sealing surface of said first tube and said sealing surface of said second tube, and wherein said sealing surfaces prevent water from flowing into said gap when said water treatment cartridge is sealingly engaged to a water treatment device.

58. (Previously Presented) The water treatment cartridge of claim 57, wherein said first and second tubes are without o-rings

59. (Previously Presented) The water treatment cartridge of claim 57, wherein the diameter of said inside surface of said second tube is from about 1 cm to about 5 cm, and wherein the diameter of said outside surface of said first tube is from about 0.5 cm to about 3 cm.

60. (Currently Amended) A water treatment device for sealingly and releasably engaging a water treatment cartridge, said water treatment device comprising:

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(a) a first housing surrounding an outlet such that a treated water outlet passageway is formed, said housing comprising an inside surface and an outside surface, said first housing comprising at least one sealing surface; and

(b) a second housing comprising an inside surface and an outside surface, said second housing comprising at least one sealing surface;

wherein at least a portion of said second housing surrounds at least a portion of said first housing, wherein, ~~prior to engagement with the water treatment cartridge,~~ a gap is formed in the area between said outside surface of said first housing and, said inside surface of said second housing, and said sealing surfaces of said first and second housings such that water does not flow into said gap.

61. (Previously Presented) The water treatment device of claim 60, wherein the area between said outside surface of said first housing and said inside surface of said second housing functions as an air vent.

62. (Previously Presented) The water treatment device of claim 60, wherein the area between said outside surface first housing and said inside surface of said second housing functions as an air vent.

63. (Previously Presented) The water treatment device of claim 60, wherein said water treatment device further comprises a pressure vessel, wherein said pressure vessel is sealingly fitted to said water treatment device such that said pressure vessel is, when the water treatment cartridge is sealingly engaged to said water treatment device, in untreated fluid communication with said first housing, but is not in untreated fluid communication with said second housing.

64. (Previously Presented) The water treatment device of claim 63, wherein said pressure

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vessel is threadably fitted to said water treatment device.

65. (Previously Presented) The water treatment device of claim 60, wherein said first housing is a tube, and wherein said second housing is a tube.

66. (Previously Presented) The water treatment device of claim 60, wherein said first and second housings are concentric, and wherein said first housing extends from said water treatment device a greater distance than said second housing.

67. (Previously Presented) The water treatment device of claim 60, wherein said outside surface of said first housing and said outside surface of said second housing are sealing surfaces.

68. (Previously Presented) The water treatment device of claim 67, wherein said sealing surfaces are o-rings.

69. (Currently Amended) A water treatment device capable of sealingly and releasably engaging a water treatment cartridge, the water treatment cartridge comprising a first tube and a second tube, said water treatment device comprising:

(a) an outlet housing for sealingly engaging the first tube of the water treatment cartridge, said outlet housing comprising an inside surface and an outside surface, said outlet housing comprising at least one sealing surface; and

(b) a vent housing for sealingly engaging the second tube of the water treatment cartridge, said vent housing comprising an inside surface and an outside surface, said vent housing comprising at least one sealing surface;

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wherein at least a portion of said inside surface of said outlet housing forms and defines a treated water outlet passageway, wherein at least a portion of said outside surface of said outlet housing and at least a portion of said inside surface of said vent housing forms and defines an air vent, and wherein at least a portion of said vent housing surrounds at least a portion of said outlet housing;

wherein when the water device is sealingly engaged to a water treatment cartridge, a gap is enclosed and sealed between the sealed engagement of the outlet housing and a first tube of the water treatment cartridge and the sealed engagement of the vent housing and a second tube of the cartridge.

70. (Currently Amended) A water treatment system comprising:

(1) a water treatment cartridge for treating water, said water treatment cartridge capable of sealingly and releasably engaging a water treatment device, said water treatment cartridge comprising:

(a) a housing, an inlet for introducing water into said water treatment cartridge, an outlet port for egress of treated water from said water treatment cartridge, and a treatment media for treating water, said treatment media being in fluid communication with said inlet and said outlet ports;

(b) a first tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein at least one of said inside surface and said outside surface is a sealing surface; and

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(c) a second tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherin at least one of said inside surface and said outside surface is a sealing surface;

wherein said first tube extends from said housing and surrounds said outlet port, and wherein at least a portion of said first tube or at least a portion of said second tube surrounds the other;

(2) a water treatment device for sealingly and releasably engaging said water treatment cartridge, said water treatment device comprising:

(a) an outlet housing having an inside surface and an outside surface, said outlet housing comprising at least one sealing surface; and

(b) a vent housing having an inside surface and an outside surface, said vent housing comprising at least one sealing surface;

wherein at least a portion of said inside surface of said outlet housing forms and defines a treated water outlet passageway, and wherein at least a portion of said outside surface of said outlet housing and at least a portion of said inside surface of said vent housing forms and defines an air vent;

wherein said first tube sealingly engages said outlet housing to form a first seal, and wherein said second tube sealingly engages said vent housing to form a second seal and such that said inside surface of said first tube and said inside surface of said outlet housing are in fluid communication, and such that said outside surface of said first tube and said inside surface of said vent housing are in fluid communication;

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wherein a gap is enclosed between said first and second seals and does not permit a liquid to flow into the gap.

71. (Previously Presented) The water treatment system of claim 70, wherein said at least one sealing surface of said outlet housing is at least one o-ring oriented around said outside surface of said outlet housing, and said at least one sealing surface of said vent housing is at least one o-ring oriented around said outside surface of said vent housing.

72. (Previously Presented) The system of claim 70, wherein at least one sealing engagement of said second tube and said vent housing occurs distal to at least one sealing engagement of said first tube and said outlet housing, relative to said water treatment cartridge housing.